

# Häagen-Dazs Honey Bee Haven 2018 Annual Report

University of California Department of  
Entomology and Nematology

December 2018



## **Häagen-Dazs Honey Bee Haven Annual Report**

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Prepared by Christine Casey, Academic Program Management Officer, December 2018

Thanks to everyone who volunteered, donated, or visited – in person, at an event, or online – in 2018. Your support and enthusiasm for our mission of teaching about bees and the plants they need are constant reminders of why the Haven matters. This year saw record visitor numbers as well as new programs and activities.

### **SUPPORT**

#### ***Financial***

The Haven continues to rely on grants and donations for our funding. A breakdown of FY2018 expenses is given in Appendix I. As is appropriate for our mission, over half – 56% – of expenses were for plant material and educational programs. We continue to rely on grants to cover my salary and that of our student intern. Funding was provided by the [USDA-NIFA Specialty Crops Research Initiative](#) and the [California Department of Food and Agriculture's \(CDFA\) Specialty Crops Block Grant Program](#) as well as the [UC Davis College of Agriculture and Environmental Sciences](#).

Receipt of these grants represents an exciting expansion of our outreach programs as well as a move into research, broadening the scope of the work we do at the Haven. These grants will also provide funding to hire undergraduate assistants. We continue to rely on individual donations to support garden operating expenses. Tremendous thanks go to all individuals and organizations that support the Haven!

#### ***Volunteers***

The Haven volunteer team continues to grow, with work taking place weekly on Tuesday mornings and monthly on the second Saturday. Volunteers contributed 380 hours to the Haven in 2018: 258 hours of garden maintenance and 122 hours of outreach. This has an in-kind value of \$9382 (based on the [national volunteer average labor rate](#)) and represents a 37% increase in donated hours from 2017. Volunteers with 25 or more hours of service are recognized in the garden.

### **PLANTINGS**

I continue to replace declining plants and add new selections. As always, plant choices are informed by research and careful observation. The Haven is more than “just” a garden: existing beds are being redefined to better reflect our mission as an outdoor museum dedicated to bees and the plants that support them. Our plantings are not random, but are a curated collection available for public viewing and study. This year new plantings to create ceanothus and manzanita beds were completed. These will allow visitors to compare species and cultivars of these two important groups of bee plants.

Plant resources on our web site and blog continue to be updated to reflect these changes and make it easier for visitors to plan their own bee gardens. For example, the plant list is now available in a sortable Excel version with Sunset growing zones. By early 2019 the list will also include information on fire tolerance.

Record-setting temperatures and poor air quality were a challenge for plants, bees, and volunteers this year. We noticed a marked decrease in bee activity during the Carr Fire in mid-July as smoke drifted down the Sacramento Valley. We are seeking support for an air quality monitor that will allow us to quantify the effect of particulate matter air pollution on bee activity.

## **FOOD DONATIONS**

We produced 205 pounds of fruits, vegetables, and herbs in 2018. All produce grown in the Haven in 2018 was donated to the [Yolo Food Bank](#) or given away to Haven visitors. Consistent volunteer help with harvesting and transportation to area food banks remains a challenge.

## **GARDEN OUTREACH PROGRAMS**

### ***Bee gardening classes***

I continue to teach classes for the public about bee gardening. A bee watching class was added in 2018 and the bee gardening class will be offered twice in 2019 to meet demand.

### ***Children's bee gardening***

The children's activity area is being well-used. We will be introducing a bee gardening class for children 12 and under in 2019.

### ***New exhibits in 2019***

Two exciting new exhibits are under construction in the Haven for opening in early 2019. A volunteer-led project is an [analemmic sundial](#), which will be the only one of its type in the Sacramento region, according to the [North American Sundial Society's](#) registry. This is being designed and installed by volunteer Rick Williams.

I'm also excited to be able to see the completion of a screen cage for our bee hive in early 2019. This will allow us to open our hive for public viewing. Funding for materials was provided by the [Sacramento Area Beekeepers Association](#) and Stephanie and Darrin Ogletree, who also provided construction assistance.

### ***Events and guided tours***

In addition to public events, guided tours are given from mid-March to mid-October. In 2018, 2099 visitors attended events and tours at the garden; the affiliation of visitors is shown in Appendix II. This is a 58% increase from 2017.

### ***Off-site events***

The Haven also participated in a number of off-site programs in 2018; we reached 1627 visitors via these programs. Program details are listed in Appendix III. This is a 12% decrease from 2017, but was more than offset by the large increase in on-site visitors.

### ***Media coverage***

The garden was covered in print, radio, and blogs in 2018. Links to each are given in Appendix III.

## **VIRTUAL HONEY BEE HAVEN**

### ***Social media***

Our [Facebook page](#), [Bee Gardener blog](#), [Twitter](#), and [Flickr](#) accounts are updated regularly and serve as additional sources of bee gardening information. A [California Specialty Crops-Bee](#)



[Connection blog](#) and [Facebook page](#) related to our California Department of Food and Agriculture Specialty Crops grant is also available.

### **Web resources**

The [garden web page](#) is updated regularly and serves as another source of information for bee gardeners. It is also the online portal for garden tour reservation.

### **RESEARCH**

A significant new area for the Haven in 2017 was research. We are now in the second year of our largest research project, “Protecting Pollinators with Economically Feasible and Environmentally Sound Ornamental Horticulture,” which is part of a national effort. Teams from around the US are studying the commonly sold ornamental plants in their area to determine bee foraging preferences. This information will be used by nursery growers to market “bee friendly” plants. While this designation is often used now, depending on the location or vendor there may be little research data to back up these claims.

Sampling was done both in the Haven and in a field plot about two miles from the Haven. The latter consisted of five replications of fifteen plants arranged in a randomized design. Sampling began in May and continued into September.

Results for 2017 and 2018 are shown in Appendix III. Student intern Summer Cortez (left) and Citizen Science volunteer Better Warne (right) did the data collection.



### **CONCLUSION**

The Haven’s 2018 was marked by record visitor numbers, record temperatures, and expansion into new programs and areas. Thanks to all our volunteers and supporters for making this possible. We could not do it without you! I look forward to doing even better in 2019.

Appendix I. Honey Bee Haven FY2018 financial report

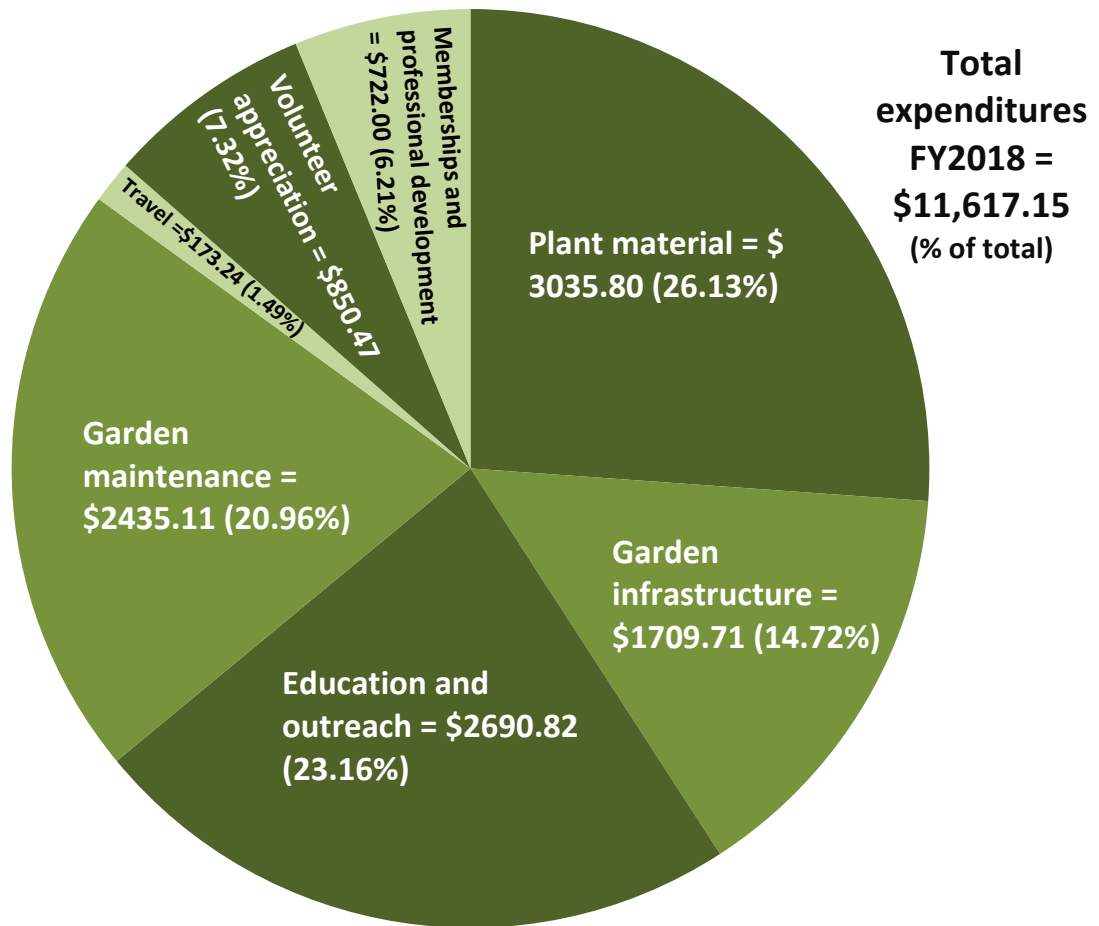


Figure 1. Haven expenditures in FY 2018.

In addition to salary, it cost \$11,617.15 to run the Haven in FY2018. The categories cover expenses as follows:

**Plant material:** All plants and seeds used in the garden

**Garden infrastructure:** Construction and maintenance of garden facilities including fencing, raised beds, and pathways

**Education and outreach:** Handouts, signs, and other display materials

**Garden maintenance:** Tools, soil amendments, and other supplies needed to maintain the garden.

**Travel:** Travel to offsite events and to purchase plants and supplies

**Volunteers:** Refreshments and safety supplies for volunteers

**Memberships and professional development:** Professional memberships, fees and travel costs associated with training for garden staff, advertising

**Appendix II.** Honey Bee Haven guided tours, offsite events, and media coverage in 2018

Affiliation of garden event and guided tour participants:

Ag industry	65
Beekeepers	357
Donors	30
Government agency	3
Growers	150
International	12
K-12	202
Master Gardener volunteers	100
Public	2627
Teachers	119
UCD alumni	19
UCD employees	27
UCD students	15
<b>TOTAL</b>	<b>3726</b>

Attendance at our largest classes other public events featuring the Haven and bee gardening in 2018:

Biodiversity Museum Day	575
Keeping Bees Healthy symposium	225
Soil Born Farms teacher training conference	13
Planting the Bee Garden	28
Bee Watching for Beginners	15
Sacramento Area Beekeepers Association open house	42
CA Honey Festival	1147
Sacramento Master Gardeners pollinator garden training	80
Harvest Day	335
<b>TOTAL</b>	<b>2460</b>

Media coverage in 2018

Daily Democrat	<a href="http://www.dailydemocrat.com/article/NI/20180208/NEWS/180209862">http://www.dailydemocrat.com/article/NI/20180208/NEWS/180209862</a>
California Aggie	<a href="https://theaggie.org/2018/02/13/biodiversity-day/">https://theaggie.org/2018/02/13/biodiversity-day/</a>
Davis Enterprise	<a href="https://www.davisenterprise.com/local-news/news-columns/at-the-pond-enjoying-a-davis-nature-day/">https://www.davisenterprise.com/local-news/news-columns/at-the-pond-enjoying-a-davis-nature-day/</a>
Sacramento Carpe Diem	<a href="http://sacramento.carpediem.cd/events/6027464-pollinator-to-plate-bees-in-the-food-garden-at-haagen-dazs-honey-bee-haven-at-hagen-dazs-honey-bee-haven-at-the-university-of-california-davis/">http://sacramento.carpediem.cd/events/6027464-pollinator-to-plate-bees-in-the-food-garden-at-haagen-dazs-honey-bee-haven-at-hagen-dazs-honey-bee-haven-at-the-university-of-california-davis/</a>
California Aggie	<a href="https://theaggie.org/2018/03/04/health-and-honey/">https://theaggie.org/2018/03/04/health-and-honey/</a>
Davis Enterprise	<a href="https://www.davisenterprise.com/local-news/create-your-own-diy-pollinator-garden/">https://www.davisenterprise.com/local-news/create-your-own-diy-pollinator-garden/</a>
Western Farm Press	<a href="http://www.westernfarmpress.com/tree-nuts/cooperation-can-help-protect-honey-bees-orchards">http://www.westernfarmpress.com/tree-nuts/cooperation-can-help-protect-honey-bees-orchards</a>
Hanford Sentinel	<a href="https://hanfordsentinel.com/features/local/bees-in-the-garden/article_d6067171-4a84-50cf-a6f9-34b4af825111.html">https://hanfordsentinel.com/features/local/bees-in-the-garden/article_d6067171-4a84-50cf-a6f9-34b4af825111.html</a>
Reading Record Searchlight	<a href="https://www.redding.com/story/life/2018/12/05/bees-master-gardener/2221239002/">https://www.redding.com/story/life/2018/12/05/bees-master-gardener/2221239002/</a>

Appendix III. Plant bee attractiveness research results to date

**Field plot evaluation: honey bees**  
**2017** **2018**

Plant	Rank		Plant	Rank	
<i>Nepeta x faassenii</i> 'Walker's Low'	1		<i>Nepeta x faassenii</i> 'Walker's Low'	1	
<i>Zinnia elegans</i>	2	Not counted in 2018	<i>Teucrium chamaedrys</i>	2	
<i>Salvia nemorosa</i>	3		<i>Gaura lindheimeri</i>	3	Not counted in 2017
<i>Symphotrichum chilense</i>	4		<i>Lavandula x intermedia</i>	4	Not counted in 2017
<i>Perovskia atriplicifolia</i>	5		<i>Perovskia atriplicifolia</i>	5	

Figure 4. Top five honey-bee preferred plants in 2017 and 2018 in the replicated field plots.

**Garden evaluation: honey bees**  
**2017** **2018**

Plant	Rank		Plant	Rank	
<i>Perovskia atriplicifolia</i>	1		<i>Nepeta x faassenii</i> 'Walker's Low'	1	Not counted in 2017
<i>Eriogonum fasciculatum</i>	2		<i>Perovskia atriplicifolia</i>	2	
<i>Gaillardia</i> 'Arizona Sun'	3		<i>Teucrium chamaedrys</i>	3	
<i>Hylotelephium x spectabile</i> 'Autumn Joy'	4	Not counted in 2018	<i>Calamintha nepetoides</i>	4	Not counted in 2017
<i>Lantana</i> 'Trailing Purple'	5	Not counted in 2018	<i>Bulbine frutescens</i>	5	Not counted in 2017

Figure 5. Top five honey-bee preferred plants in 2017 and 2018 in the Haven.